

REMARKS

Section 103 Rejection (Foster ivo Green)

All claims were rejected as being unpatentable over Foster in view of Green. Applicant has further limited the single independent claim to distinguish the present invention as claimed from the referenced prior art. All claims now apply only to transceivers operating at frequencies in excess of 60 GHz. The systems described by Foster and Green all operated at frequencies much lower than 60 GHz. The maximum frequencies are in the same general range as those discussed by Applicants in their Background section. Applicants referred to these prior art systems as follows: "Recently microwave systems in the 11 to 38 GHz band have reportably been designed to transmit at rates up to 155 Mbps...." There is no suggestion in Foster or in Green or both of them taken together for building and operating transceivers at frequencies in the range now claimed by Applicants, namely more than 60 GHz. To the best of Applicants knowledge, transceivers in the frequency ranges claimed by Applicants did not exist until Applicants started making them. Examiner has not sited any prior art disclosing any such transceivers and Applicants are not aware of any. Operation at these frequencies is extremely difficult. Applicants proved that transceivers could be built to operate at these frequencies after many years of hard work. They deserve a patent covering this aspect of their invention.

Also, the independent claim is now limited by a tracking system comprising a modified version of one of three types of radar tracking systems. These prior art radar tracking systems operate with reflected beams. The tracking systems described and now claimed by Applicants are modified versions of these old tracking systems that operate using communication signals from a far away site. Green does disclose a tracking system for tracking a sky born target such as a satellite or airplane but distinguishes his system from the prior art radar techniques that have been modified by Applicants as described and claimed in the subject application. Green does not suggest that his device would be useful for tracking antenna between two stationary sites. Applicants have modified their claims to limit them to antenna located at "stationary sites". It would not have occurred to Green to apply his invention between stationary sites because he obviously was using radio frequencies that produce very wide beams so that tracking is needed only when the target is moving substantial distances. In addition, as suggested above, Green's tracking system is substantially different from the tracking systems covered by Applicants claims as now limited. Green's system utilizes a moving body to block portions of a received beam in order to create a modulating receive beam. Applicants do not claim such a system.

Furthermore, there is nothing in Green to suggest the systems that are claimed by Applicants.

Applicant's half-power preferred beam widths are only about 0.36 degrees. A typical beam width of a radio frequency of the type that would be used for communication with airplanes or satellites with a 2 foot antenna would be about 8 degrees. Even with the frequencies referred to by Foster the half-power beams would be about 1 degree. These examples show that thoughts of tracking between transceivers at stationary sites would not have occurred to anyone except possibly someone who has invented a transceiver with a beam much narrower than prior art communication beams. This is what Applicants have done and they deserve a patent covering their tracking systems.

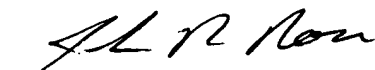
Double Patenting

Examiner rejected various claims as obviousness type double patenting by combining Green with various patent and patent applications of inventors. Applicants request reconsideration. For reasons explained above, Green in combination with the cited patents and patent applications does not disclose or suggest the specific tracking antennas of the invention as presently claimed. In addition, in those cases where the rejection is based on an application currently in the process of review, resolution of this issue may be deferred.

Conclusion

For all of the above reasons, Applicants request that the claims as modified be allowed and that the application be allowed to issue as a patent.

Respectfully submitted



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